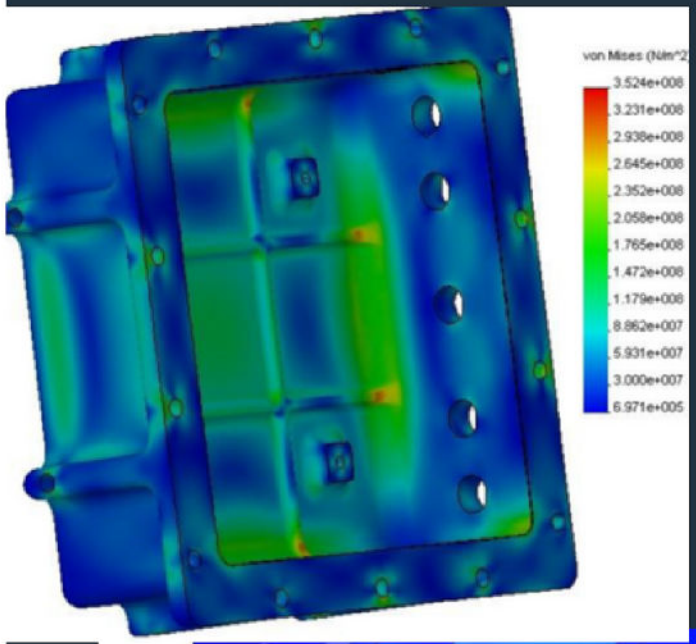

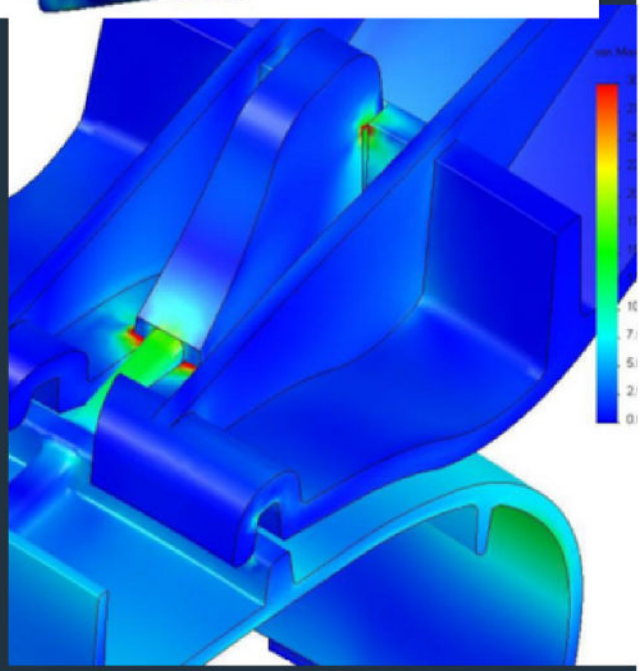

Finite Element Analysis

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E3K
ENGINEERING 3000

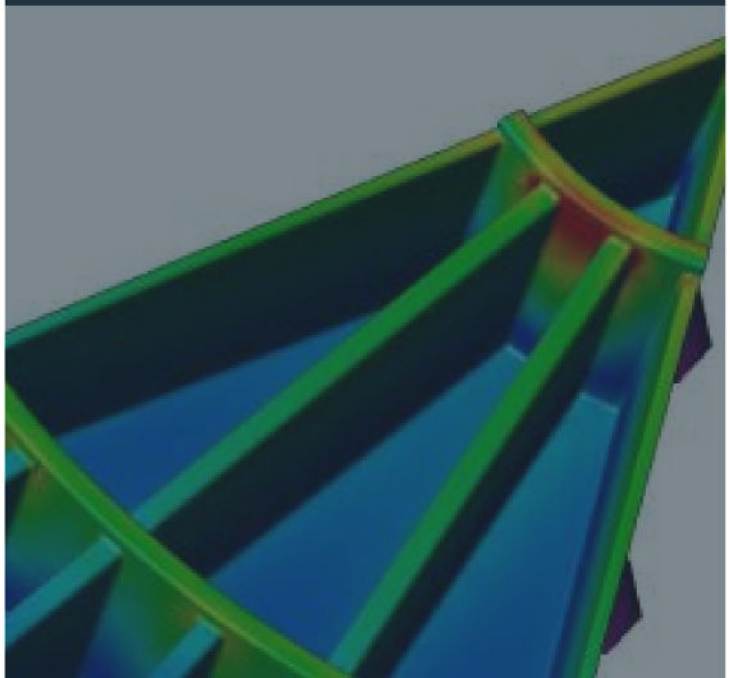
The award winning team at E3K regularly use simulation software as part of the engineering design process. We can efficiently optimise and validate each design step using fast-solving, CAD integrated, simulations to ensure quality, performance, and safety. This reduces the need for costly prototypes, reduces rework and delays, and saves time and development costs.

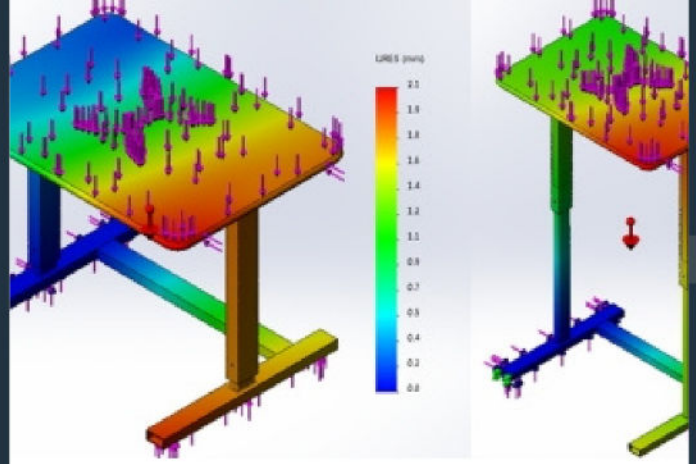
Experienced professional engineers at E3K have a proven track record of delivering top quality results for clients.

E3K not only perform analysis for clients, but have the skill and expertise to interpret the results and optimise designs based on criteria such as weight saving, strength and stiffness, flexibility, noise reduction, cooling performance, and fatigue life.

Australian Standard test simulations for waste water tank

E3K performed a number of FEA simulations on the first product using the award-winning Joinlox® system, a waste water tank for Biolytix. The analysis performed by E3K helped optimise the design of the Joinlox® system and predict the behaviour of the joints and the whole tank under Australian Standard test scenarios.





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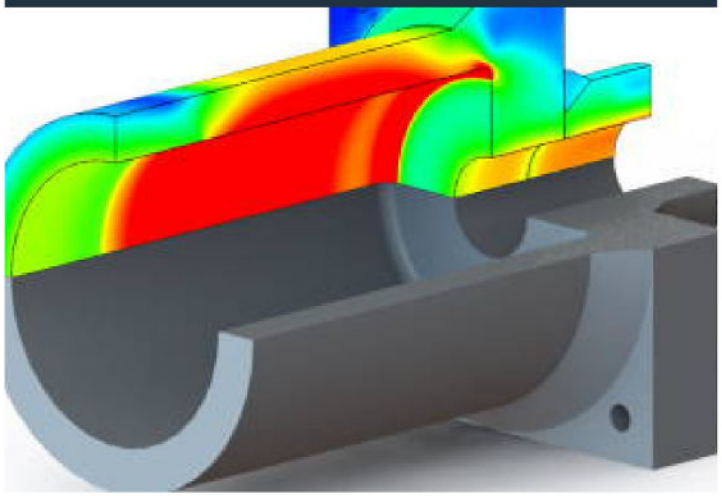
Sit/Stand Height Adjustable Desk

E3K designed a new height adjustable desk for use in both sitting and standing modes. As part of the design process E3K engineers used FEA and advanced motion simulation to predict the performance of the desk when subject to Australian Standards tests.

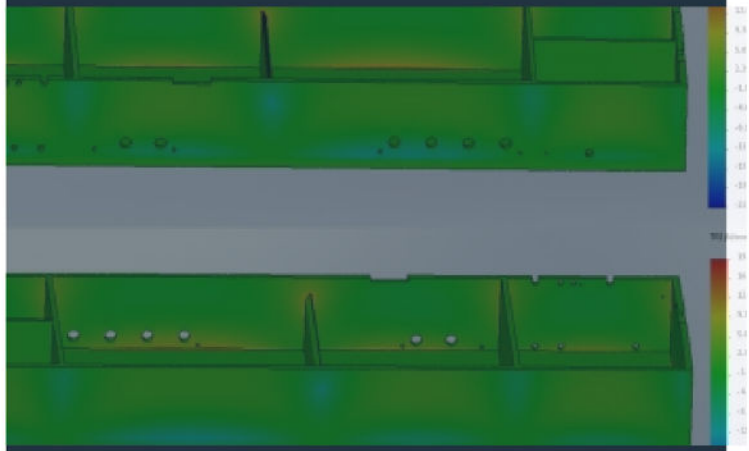
Australian Standard Pressure Vessel Simulations

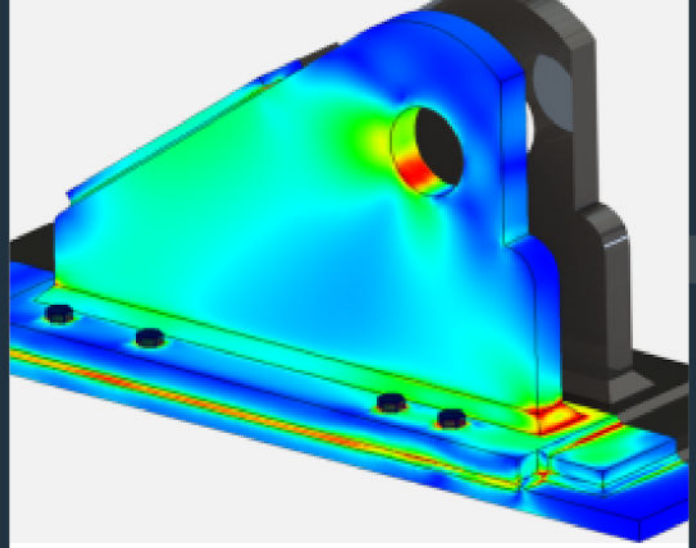
E3K performed a number of FEA simulations on the bore of hydraulic rams. Based on the initial simulations, E3K engineers were able to recommend improvements to the design to lower the stresses to acceptable levels. FEA simulations of the new design were shown to pass the strength requirements of Australian Standard AS 1210.



Steel Reinforced Concrete Tank

E3K engineers project managed the repair of a steel reinforced concrete tank in South East Asia. As part of the project, FEA was performed on the tank in the damaged condition, and the original installed condition, to give an indication of the changes in stresses within the tank caused by the damage to the tank.





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Crusher Feeder Repair

E3K engineers project managed the repair of a crusher feeder. As part of the project, FEA was performed on the hydraulic ram connection lugs and on specially designed lifting platforms to enable the crusher feeder to be lifted whilst it was pushed back into the correct position.

Screw Pile FEA

As part of a design and weld specification review, E3K engineers performed Finite Element Analysis on a 3D model of the screw pile to simulate the loads on the pile as it is screwed into the ground.